



OWNER'S MANUAL

Super Natural Sound
High Performance Technology



SP-1200.2 dbPRO
SP-2500D dbPRO
SP-3000D dbPRO

FEATURES

[SP-1200.2 dbPRO]

- 2/1 Channel Bridgeable Class A/B Amplifier
- MOSFET PWM Power Supply
- 4 Ohm Bridged / 2 Ohm Stereo Stability
- 24dB Octave Crossover Slope
- Variable Low Pass Filter (LPF)
- Variable High Pass Filter (HPF)
- HPF/FULL/LPF Selectable Switch
- Variable Bass Boost
- On/Off Subsonic Switch
- RCA Line Input and Output
- Multi-Way Protection circuitry (Thermal/Over Current/Speaker Short /Speaker DC protection)
- Tested Voltage & THD: 14.4V & Less than 0.05% THD
- Operating Voltage : DC10V~15.5V Power Input
- Wired Remote Controller

[SP-2500D dbPRO]

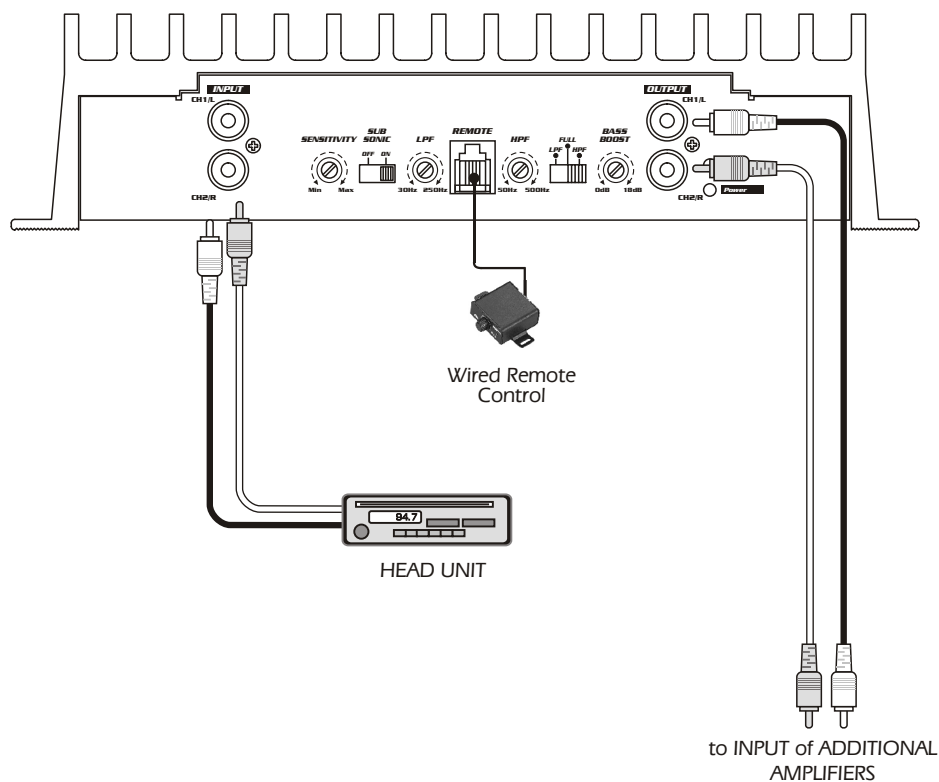
- Digital Class-D Linkable Mono Block Amplifier
- Double Sided Through Hole Epoxy PCB
- Stable into 1 Ohm Load Workable
- Daisy-Chain Through Output RCA
- Two Amp Linkable Function : Output Master and Input Slave
- Efficiency : 86% @ 4 ohm, at 100Hz
- 24dB/Oct Variable Crossover
- Multi-Way Protection Circuitry (Thermal/Over Current/Speaker Short /Speaker DC Protection)
- RCA Line Input
- Variable Subsonic Filter
- Variable Bass Boost
- Variable Low Pass Filter
- Variable Phase Shift
- Zero(0) Gauge Power Supply Connectors
- Tested Voltage & THD : 14.4V & Less than 1% THD
- Operating Voltage : DC 10V~16V Power Input
- Wired Remote Controller

[SP-3000D dbPRO]

- Digital Class-D Linkable Mono Block Amplifier
- Double Sided Through Hole Epoxy PCB
- Stable into 1 Ohm Load Workable
- Daisy-Chain Through Output RCA
- Two Amp Linkable Function : Output Master and Input Slave
- Efficiency : 86% @ 4 ohm, at 100Hz
- 24dB/Oct Variable Crossover
- Multi-Way Protection Circuitry (Thermal/Over Current/Speaker Short /Speaker DC Protection)
- RCA Line Input
- Variable Subsonic Filter
- Variable Bass Boost
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- Zero(0) Gauge Power Supply Connectors
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RCA CONNECTION

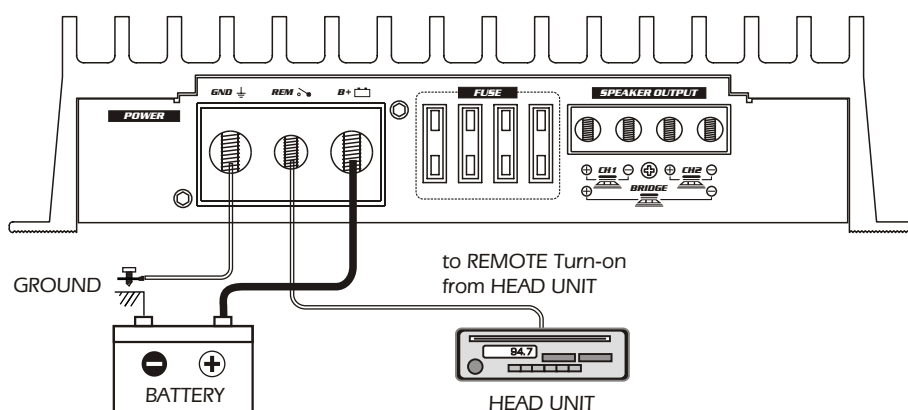
[SP-1200.2 dbPRO]



This amplifier has a signal input terminal of RCA connector type for low level inputs. Adjustment of input levels is accomplished by the gain control of both channels. Adjusting this control allows the amplifier gain to be controlled to match and balance both channels. The RCA input connector should be used when connecting the radio/cassette line out and this connection is usually made using RCA-RCA connector wires.

POWER CONNECTION

[SP-1200.2 dbPRO]



It is important that you read this manual very carefully and follow it for your installation carefully. Before you start your installation, please consider following concerns.

1. Disconnect the negative (-) battery cable before mounting the amplifier or making any connections. Check the battery and alternator ground (-) connections. Make sure they are properly connected and free of corrosion.
2. Before selecting a mounting location for amplifier, please take some concerns into consideration with cooling efficiency and safety.

This amplifier uses heavy-duty and good heat radiation heatsink design for avoiding excess heatsink from amplifier circuitry. But for better heat radiation performance, it is good to find the mounting location where you can install amplifier vertically with the heatsink fins and better air flow around amplifier. For the safety, you have to find dry and well ventilated location and make sure any wires cables and car equipment are not interfaced with amplifier installation. Be sure the mounting location and drilling of pilot holes for mounting will not present a hazard to any wires, control cables, fuel lines, fuel tanks, hydraulic lines or other vehicle systems or components.

3. Power connection

Before installing amplifier, disconnect the negative(-) wire from battery to protect any accidental damage to your amplifier and system. Connection one end of fuse holder to the power cable and the other end of fuse holder to positive battery within 20cm of the same cable. Connect the power cable to the amplifier power terminal labeled as +12V. This fuse location will protect the system and the vehicle against the possibility of a short circuit in the power cable. Be sure to use a fuse and fuse holder adequate for the application. No fuse is required before the amplifier power connection.

4 Ground connection

Locate a secure grounding connection as close to the amplifier as possible. Make sure the location is clean and provides a direct electrical connection to the frame of the vehicle. Connect one end of a short piece of the same size cables as the power cable to the grounding point. Run the other end of the cable to the amplifier mounting location. Connect the ground cable to the screw terminal labeled as GND.

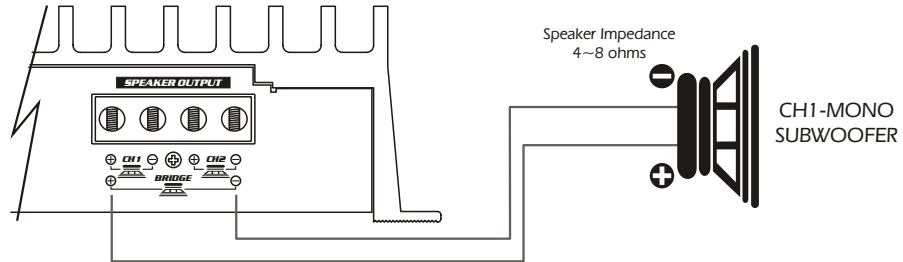
5. Remote connection

Run a remote turn on cable from the switched +12V source you will be using to turn on the system components. This may be a toggle switch, a relay, or your source unit's remote trigger wire, or power antenna trigger wire. Connect the remote turn on cable to the power terminal labeled as REM. Run this lead to the amplifier mounting location. Using 16AWG wire or larger.

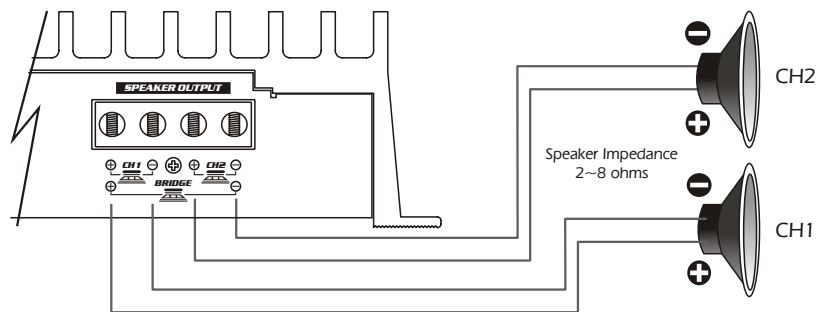
SPEAKER CONNECTION

[SP-1200.2 dbPRO]

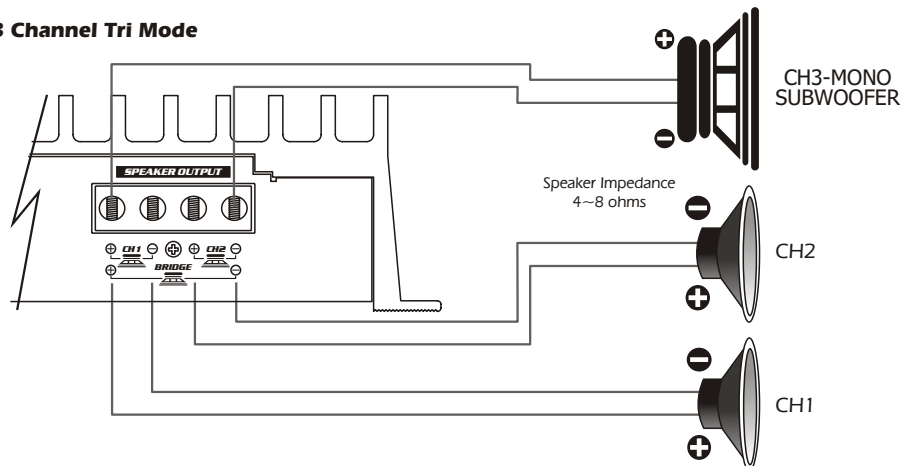
1 Channel Bridged



2 Channel Stereo



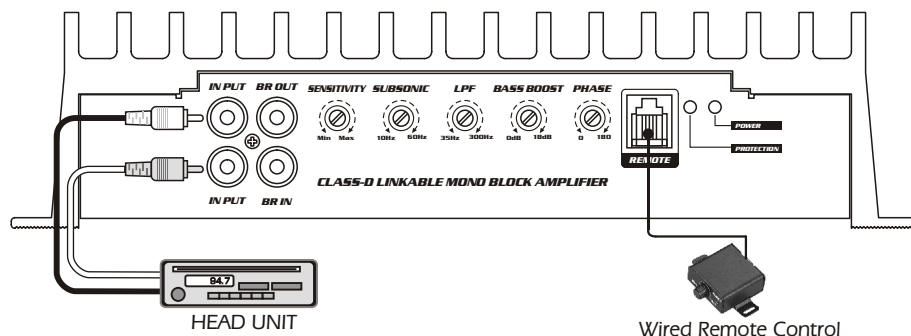
3 Channel Tri Mode



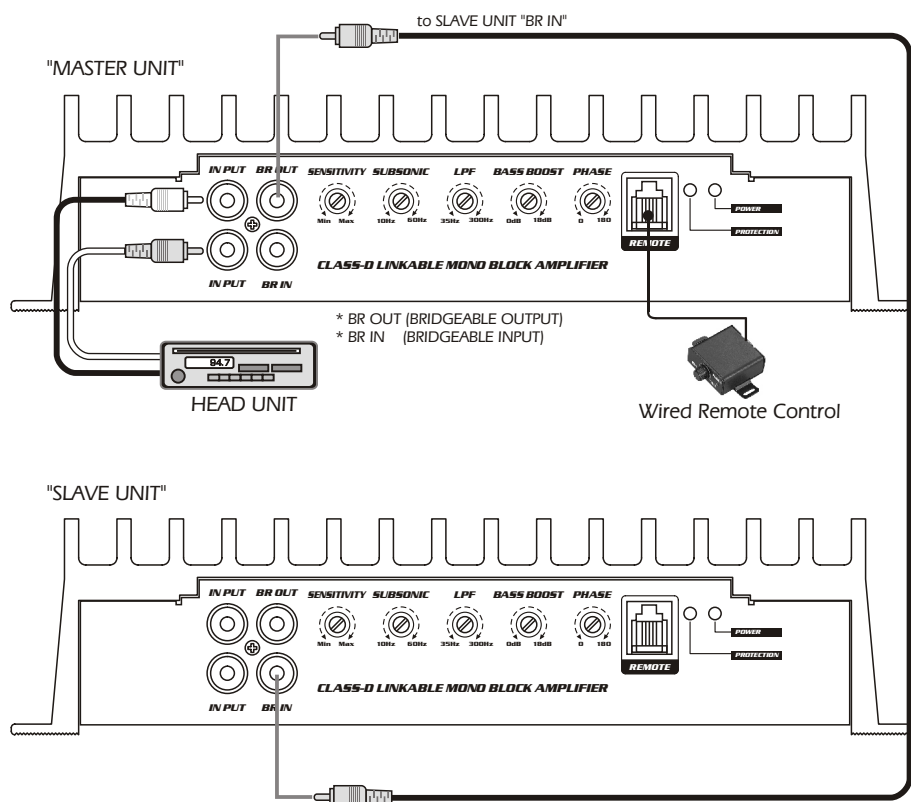
RCA CONNECTION

[SP-2500D dbPRO & SP-3000D dbPRO]

Single Amp Input Connection

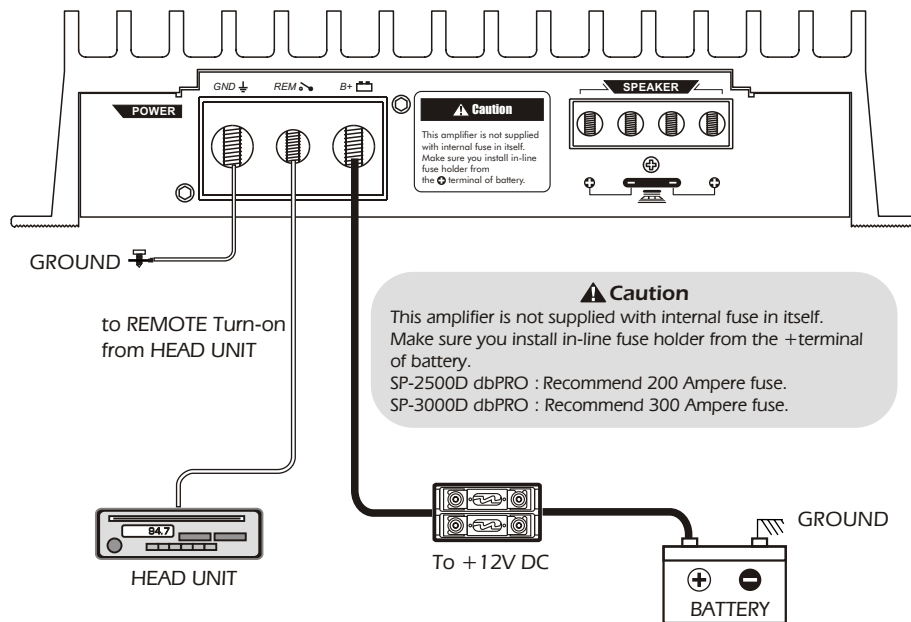


Dual Amp Input Connection (MASTER & SLAVE RCA Connection)



POWER CONNECTION

[SP-2500D dbPRO & SP-3000D dbPRO]



+12V Power

Connect the +12V terminal of the amplifier to the + terminal of the battery using the same diameter as the ground cable, making sure you install in-line fuse holder, approximately 300 or 400 mm. From the + terminal of battery, making sure that there is no fuse in the battery holder.

GROUND

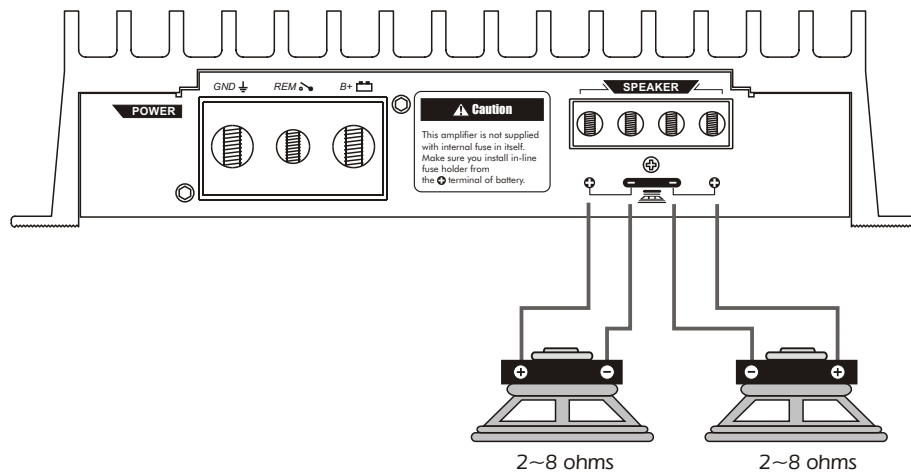
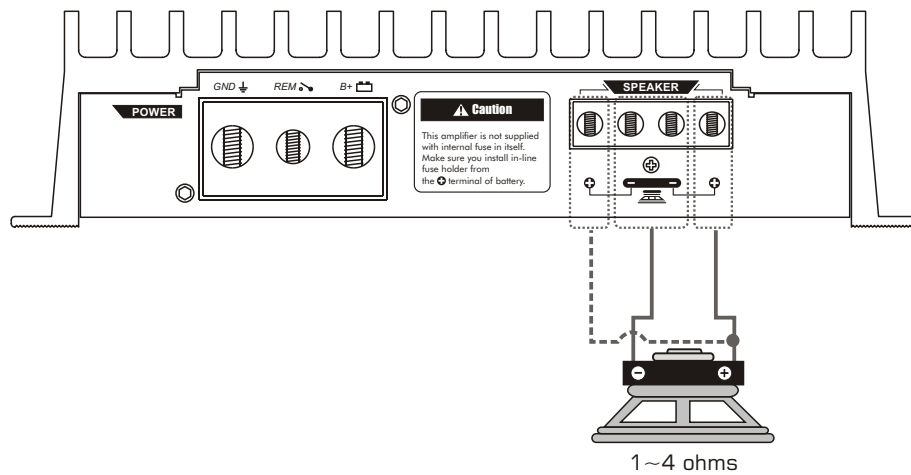
Disconnect the battery and connect the GND (ground) terminal to the car's chassis. Keep this cable as short as possible (not longer than 500 mm. or less). Making sure that the connection with the chassis is rust-free and clear of paint or grime.

REMOTE

Connect the REM terminal of the amplifier to the power antenna terminal in the car ignition switch using 12 or 16 ga. electrical wire.

SINGLE AMP SPEAKER CONNECTION

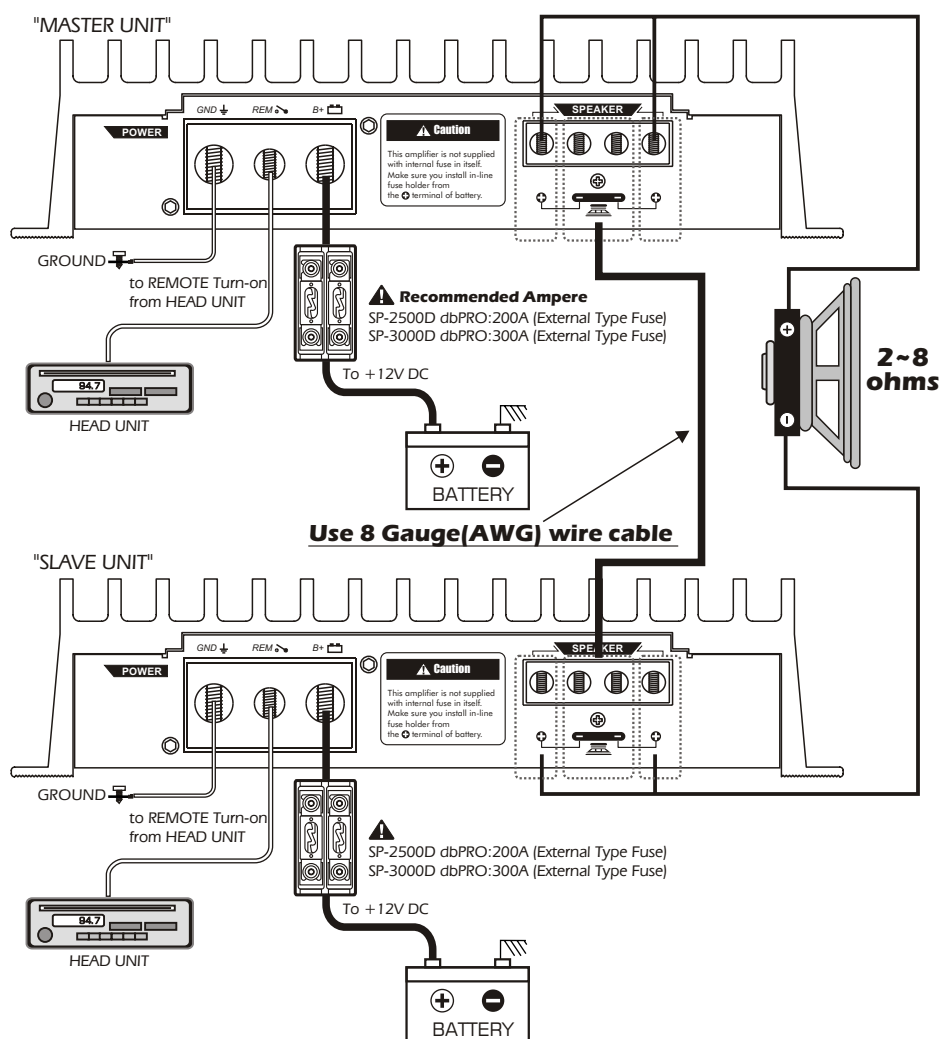
[SP-2500D dbPRO & SP-3000D dbPRO]



The positive and negative terminal of the subwoofer's voice coil are connected to the positive and negative terminal of the Amplifier.

DUAL AMP AND POWER SPEAKER CONNECTION

[SP-2500D dbPRO & SP-3000D dbPRO]



Using a dual amplifier configuration, the MASTER amplifier has total control over the SLAVE amplifier. When using dual amplifier to operate subwoofer, the positive terminal of the subwoofer's voice coil must be connected to the positive terminal of the MASTER Amplifier and the negative terminal of the subwoofer's voice coil must be connected to positive terminal of the SLAVE Amplifier. When hooking two amplifiers to it, please check the power handling capabilities of your subwoofers if they are not exceeded.

Caution

In linkable/bridgeable mode connection, total impedance must be more than 2Ω load. Any impedance (load) smaller than 2Ω could damage the amplifier.

TROUBLE SHOOTING

This power amplifier has protection features to prevent any damages from misuse or faulty conditions. If the unit senses excessive heat, short circuited speakers or overload, the protection indicators will light, and the system will be turned off. In order to check the occurred problem, you should turn all levels down and all power off and carefully check the installation for wiring mistakes or short. If the amplifier shuts down due to excessive heat, the protection indicators will not light : simply allow time for the unit to cool. Before removing your amplifier, refer to the list below and follow the suggested procedures. Always test the speakers and their wires first.

AMPLIFIER IS NOT POWERED UP

- Check that there is battery power on the +12V terminal.
- Check that remote terminal has at least 13.8V DC remote connection.
- Check a good ground connection. Check all fuses.
- Check the protection LED is not lit.

PROTECTION LED ILLUMINATES WHEN AMPLIFIER IS POWERED UP

- Check shorts on speaker wires.
- Remove speaker wires and reset the amplifier. If the protection LED still comes on, then the amplifier is faulty.

FUSE BLOWING

- Check that the minimum speaker impedance is correct.
- Check short on power cable and vehicle chassis.

OVERHEATING

- Check that the minimum speaker impedance is correct.
- Check speaker shorts.
- Check that there is a good airflow around the amplifier.

SOUND TOO LOW-DISTORTED SOUND

- Check that the input level control is set to match the output level of the unit.
- Check the head unit volume.
- Check speaker shorts.
- Check that crossover frequencies have been properly set.

HIGH HISS-ENGINE NOISE IN SPEAKERS

- Check a good ground and for speaker shorts.
- Disconnect all RCA inputs from the amplifier. If hiss/noise disappears, check it with a good RCA interconnect. Then check the component driving the amplifier.

SPECIFICATIONS

[SP-1200.2 dbPRO]

Rated power output	
-RMS power, 4 ohm stereo	350W x 2CH
-RMS power, 2 ohm stereo	560W x 2CH
-RMS power, 4 ohm bridged	1120W x 1CH
Signal to Noise Ratio	>98dB
Low Pass Crossover	30Hz ~ 250Hz
High Pass Crossover	50Hz ~ 500Hz
Subsonic Seletable @ on	30Hz
Bass Boost @ 45Hz	0~18dB
Frequency Response	10Hz ~ 40KHz (+/-1dB)
THD@RMS Watts	0.05%
Channel Separation	75dB
Fuse Rating	30A x 4
Input Sensitivity	200mV~5V (+/- 5%)
Dimensions	256(W) x 61(H) x 534(L)mm

[SP-2500D dbPRO]

Rated power output	
-RMS power, 2 ohm linkable/dual mono	4500W x 1CH
-RMS power, 1 ohm mono	2500W x 1CH
-RMS power, 2 ohm mono	1400W x 1CH
-RMS power, 4 ohm mono	700W x 1CH
Signal to Noise Ratio	>98dB
Low Pass Crossover	35Hz~300Hz
Subsonic filter	10Hz~60Hz
Bass Boost @ 45Hz	0~18dB
Phase Shift Control	0~180 degree
Frequency Response	10Hz~350Hz (+/- 1dB)
THD@RMS Watts	<1.00%
Efficiency @ 4 ohm	86%
Fuse Rating	200A(External Type)
Input Sensitivity	200mV~6V (+/- 5%)
Dimensions	256(W) x 61(H) x 534(L)mm

[SP-3000D dbPRO]

Rated power output	
-RMS power, 2 ohm linkable/dual mono	5400W x 1CH
-RMS power, 1 ohm mono	3000W x 1CH
-RMS power, 2 ohm mono	1600W x 1CH
-RMS power, 4 ohm mono	800W x 1CH
Signal to Noise Ratio	>98dB
Low Pass Crossover	35Hz~300Hz
Subsonic filter	10Hz~60Hz
Bass Boost @ 45Hz	0~18dB
Phase Shift Control	0~180 degree
Frequency Response	10Hz~350Hz (+/- 1dB)
THD@RMS Watts	<1.00%
Efficiency @ 4 ohm	86%
Fuse Rating	300A(External Type)
Input Sensitivity	200mV~6V (+/- 5%)
Dimensions	256(W) x 61(H) x 594(L)mm

The above specifications shall be modified by manufacturer for improvement without prior notice.

SOUNDPEAK[®]
USA